



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Memorandum - Enforcement Confidential

Date: 8 July 2010

Subj: NPDES Compliance Sampling Inspection
Municipal Separate Storm Sewer System (MS4)
City of Concord, NH

From: Todd Borci

To: File

On Wednesday, 7 July 2010, EPA inspector Todd Borci conducted a Compliance Sampling Inspection (CSI) of the City of Concord, New Hampshire's (the "City") Municipal Separate Storm Sewer System ("MS4"). EPA collected water quality samples from two stormwater outfalls located along the west bank of the Merrimack River just north of Loudon Road Bridge.

At approximately 10:45 hours EPA sampled an unnamed outfall (sample id "MER4120"). This outfall is an approximate 48-inch brick semicircle. EPA noted moderate to low flow, a light musty odor, and a thick black and orange coating on the substrate below. EPA observed evidence of sanitary sewage in the rocky stream bed just downstream of the outfall and downstream of where samples were collected (several sanitary napkins throughout of the stream bed). Using a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated elevated levels of surfactants (1.00 mg/l) in the sample. EPA personnel typically use 0.25 mg/l surfactants as threshold level screening concentrations, where sample results equal to or greater than this concentration may be indicative of illicit discharges. Samples were collected and sent back to the EPA laboratory for enterococcus and E.coli bacteria, pharmaceutical compounds, and total phosphorous.

At approximately 10:45 hours EPA sampled an unnamed outfall (sample id "MER4120a") located approximately 30 yards north of "MER4120". This outfall is an approximate 36-inch concrete pipe in a concrete headwall with thick metal grate covering the opening. EPA noted flow of approximately 10 gallons per minute. Using Hach brand test strips for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated elevated levels of ammonia (>6.0 mg/l) and surfactants (0.5 mg/l) in the sample. Samples were collected and sent back to the EPA laboratory for enterococcus and E.coli bacteria, pharmaceutical compounds, and total phosphorous.

Once received from EPA laboratory, the analytical data for this sampling effort will be attached to this report.

The inspection occurred during dry conditions, as according to the National Oceanic and Atmospheric Administration (Manchester Airport gauge).



Photo 1: 7/7/10 11:00 AM - View of unnamed outfall and “MER4120” sample location.



Photo 2: 7/7/10 11:04 AM - View of unnamed outfall and “MER4120a” sample location.